

### REMARKS

The present communication responds to the Office Action dated September 28, 2006. In that Office Action, the Examiner rejected claims 1, 3-53, 55-59, and 61-70 under 35 U.S.C. § 103(a). Applicants have herewith amended claims 1, 19, 38, 45, 53, and 59 and cancelled claims 9 and 56. No new matter has been added by these amendments. Claims 1, 3-8, 10-53, 55, 57-59, and 61-70 are pending. In view of the amendments and the following remarks, Applicants respectfully request reconsideration and allowance of the pending claims.

#### Claim rejections under 35 U.S.C. 103(a)

Claims 1, 3-53, 55-59, and 61-70 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Filepp et. al. (U.S. Patent No. 5,347,632) in view of Campbell (U.S. Patent No. 6,920,615). Applicants respectfully traverse the rejection for at least the following reasons.

Filepp and Campbell are not properly combinable because Filepp teaches away from being modified or combined with *any* other references to achieve the present claimed invention:

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.  
*In re Gurley*, 27 F.3d 551, 553 (Fed.Cir.1994).

When deliberating on prior art, “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” MPEP § 2141.02 (VI).

While the present invention is directed towards a thin client architecture, where substantial proportions of the processing are performed server-side to reduce the load on the client, e.g., executing a server-based, client-controlled application at a UI server (; *see Specification*, p. 2, *para. [0021]*), in contrast, Filepp is directed towards an architecture that reduces the load on the server and provides for a fat client:

. . . the invention includes procedures for formulating objects that have been specially structured to include display data, control data and program instructions for supporting the applications at the

network reception systems, the objects being pre-created, parceled units of information that may be distributed and stored at lower levels in the network . . . so as to reduce processing demand on the network higher element . . . *Filepp, Col. 2, l. 61-Col. 3, l. 1* (emphasis added).

The object of reception system software is to minimize mainframe processing . . . *Filepp, Col. 82, ll. 18-19*.

More particularly, Filepp describes a method of distributing application partitions to the client device for execution of the application at the client device:

Objects provide a means of packaging and distributing partitioned applications . . . objects make up one or more partitioned applications, and are retrieved on demand by a user's RS 400 for interpretive execution and selective storage. *Filepp, Col. 5, ll. 40-44*.

Each application partition is an independent, self-contained unit and can operate correctly by itself. *Filepp, Col. 5, ll. 27-28*.

[I]t is desirable to have as many of these program objects staged for execution at or as close to RS 400 as possible. *Filepp, Col. 11, ll. 61-63; see Filepp, Col. 11, l. 42* ("Program objects 508 contain program instructions . . .").

Thus, the processing load on the server is reduced.

Accordingly, whereas Filepp is directed towards an architecture that reduces the load on the server and provides for a fat client (i.e., client that performs the bulk of the data processing operations), the present invention is directed towards an architecture that reduces the load on the client and provides for a thin client (i.e., server that performs the bulk of the data processing operations). *See Specification, p. 2, para. [0021]; p. 8, para. [0086]*. Considering each reference "in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention," one skilled in the art would not reasonably combine Filepp with Campbell, or any other reference, to teach or suggest the limitations of the present claimed invention. MPEP § 2141.02 (VI).

Even if properly combinable, Applicants assert that neither Filepp nor Campbell disclose, teach, or suggest the Applicants' claimed invention. Applicants previously asserted and continue to develop the argument that Filepp fails to describe every element of every claim "in as

complete detail” as is contained in the claims, as required by MPEP § 2131. Specifically, independent Claim 1 recites “formatting characteristics of said intermediate UI based upon a number of device capabilities for said client device.” Independent Claim 19 recites “defining a user interface (UI) form in response to a number of device capabilities for a client device.” Independent Claims 38, 45, and 53 provide similar recitations. Not only does Filepp fail to teach this limitation, but the Examiner has asserted the same view:

Filepp did not explicitly state formatting characteristics of said intermediate UI based upon a number of device capabilities for said client device. *Office Action dated September 28, 2006, page 3.*

Additionally, a review of Filepp reaffirms the position that the reference fails to disclose, teach, or suggest the limitation of defining or generating a user interface form based upon or in response to a number of device capabilities for a client device. Filepp discloses the same information and structure for “objects” regardless of the client device capabilities. *See Filepp, Col. 7, ll. 24-25* (“There are two types of information in the network which are utilized by the RS 400: objects and messages.”). Filepp describes objects that contain “information about what is to be displayed and how it is to be displayed,” but nowhere does Filepp disclose, teach, or suggest that these objects are “based upon” or “in response to” client device capabilities or provided by the client device OS or applications as claimed. *See Filepp, Col. 7, ll. 24-46; Col. 7, l. 64-Col. 8, l. 39* (describing the objects of Filepp without any indication of correspondence to client device capabilities).

In fact, Filepp describes a client device that provides a:

... common interface to other elements of interactive computer network 10 ... and a common protocol for user application conversation which is independent of the personal computer brand name used. RS 400 thus constitutes a universal terminal for which only one version of all applications on network 10 need be prepared ... Objects have a uniform, self-defining format ...

Accordingly, Filepp not only fails to disclose, teach, or suggest formatting, defining, or generating a user interface form based upon or in response to a number of device capabilities for a client device, but, to the contrary, each client device provides a “common interface” such that

other elements of the network would have no need to generate user interface forms based on particular client capabilities. Indeed, the objects have a “uniform, self-defining format,” not a format dependant upon a particular client device. The disclosure of Filepp, therefore, teaches away from the claimed limitation.

Furthermore, Filepp fails to disclose, teach, or suggest maintaining a shadow cache at the UI server, said shadow cache including a list of source data items transmitted from said UI server to a client device as recited in independent Claims 1, 19, 38, 45, 53, and 59. Applicants’ disclosure recites:

The UI server application includes or is otherwise associated with ... a shadow cache element. *Specification, p. 7, para. [0081].*

Shadow cache, which is maintained by the UI server, may include a list of source data items, UI form information, and other client-related data that has been transmitted from the UI server to the client device . . . the shadow cache may contain data representing items transmitted from the UI server to the client device and/or items that have been saved in the client cache . . . The UI server can interrogate the shadow cache to determine the data cached at the client device, and update the shadow cache in response to modifications to cached data entered by the client device. Shadow cache allows the UI server to monitor the status of the client cache, maintain synchronization with the client device, recognize when it is appropriate to “push” certain data types to the client device, support the persistent application states, and allows the UI server application to manage the downloading of new or modified information to the client device without repeatedly invoking applications. *Specification, p. 9-10, para. [0096].*

The Examiner points to Filepp, Col. 7, ll. 17-41 and Col. 5, ll. 20-25 for support of the assertion that Filepp discloses this limitation. It is unclear to Applicants what the Examiner refers to in these sections for support since these sections are merely directed to the disclosure in Filepp that partitioned applications are available, on demand by the user’s reception system, at higher elements of the network. In fact, nowhere does Filepp disclose, teach, or suggest maintaining a shadow cache at the UI server as disclosed and taught in the present application.

Campbell fails to remedy the deficiencies of Filepp. Campbell discloses a method and system for dynamic services support, including a portal-page service and interface bundle

installed at a gateway. *Campbell, Col. 1, ll. 43-48*. “The portal-page service searches for the customer service and generates a user interface for the customer service based on the customer service.” *Id.* Campbell further discloses that the portal service “may present an appropriate web page based on the type and capabilities of . . . [the] user device.” *Campbell, Col. 14, ll. 49-51*. Similarly, Campbell discloses that “[p]ortal service may . . . present an interface appropriate for the small screens typically associated with PDAs.” *Campbell, Col. 14, ll. 55-57*. Nonetheless, Campbell does not disclose, teach, or suggest formatting, defining, or generating a user interface based upon or in response to a number of device capabilities for a client device, where the user interface, as recited in Applicants’ independent claims, contains a user interface form or skeletal user interface and controls, icons, labels, or menu items, each being independently updateable. It may be one concept, as disclosed in Campbell, to change a user interface for appropriate display on a user device, but it is an entirely novel and inventive concept to generate a user interface, based upon device capabilities for a client device, from independently updateable forms, controls, icons, labels, or menu items, which Campbell does not disclose. Applicants respectfully assert that the Examiner is merely using impermissible hindsight to combine Campbell with Filepp in order to obtain each of the elements in Applicants’ claims.

Additionally, Campbell fails to disclose, teach, or suggest maintaining a shadow cache at the UI server, said shadow cache including a list of source data items transmitted from said UI server to a client device. As stated above, Applicants disclose a shadow cache, which is maintained by the UI server. The shadow cache “may include a list of source data items” and “may contain data representing items transmitted from the UI server to the client device and/or items that have been saved in the client cache . . .” *Specification, p. 9-10, para. [0096]*. Nowhere does Campbell disclose a shadow cache, or anything similar to the shadow cache as it is disclosed in Applicants’ specification and claims.

Therefore, even if properly combinable, neither Filepp nor Campbell, alone or in combination, disclose, teach, or suggest the invention of independent Claims 1, 19, 38, 45, 53, and 59. As discussed above, neither Filepp nor Campbell disclose, teach, or suggest defining or generating a user interface form based upon or in response to a number of device capabilities for a client device. Similarly, neither Filepp nor Campbell disclose, teach, or suggest maintaining a shadow cache at the UI server. The remaining pending claims depend from the patentable

independent claims and are therefore also patentable over Filepp and Campbell. Accordingly, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of pending Claims 1, 3-8, 10-53, 55, 57-59, and 61-70.

**CONCLUSION**

This application now stands in allowable form and reconsideration and allowance are respectfully requested.

No additional claim fees should be generated by this paper. However, the Commissioner is hereby authorized to charge any fee deficiency associated with this paper to Deposit Account No. 04-1420.

Respectfully submitted,

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